

SYSTEM AND METHOD FOR ADAPTIVE POLLING IN A WLAN**ABSTRACT OF THE DISCLOSURE**

5 A method (S200) and system for scheduling data transmissions between a base station (110) and a plurality of user terminals (130) in a wireless network. The method and system include transmitting a first poll (260) from the base station (110) to a first user terminal traffic stream (Step S210). In response to the first poll (260) the first user terminal traffic stream transmits a first frame (210) to the base station (110), where a queue state of the first user terminal traffic stream is indicated in the header of the first frame (210) (Step S220). The base station (110) removes the first user terminal traffic stream from an active list when the first frame (210) indicates that the queue state is empty (Step S230). The base station (110) then calculates a deferral window (220) and schedules transmissions of other data frames (240) between the base station (110) and the plurality of user terminal traffic streams that remain on the active list (Steps S240 and S250). At the expiration of the deferral window (220) the first user terminal traffic stream is returned to the active list (Step S260).